## **Recovery Plan Action Status**

Plan Name: Final Recovery Plan for the Scaleshell Mussel

Plan Status: Final Plan Date: 07-Apr-10

Lead Agency: USFWS
Lead Office: Columbia Ecological Services Field Office
234-2132)

| Species                                     | Action Priority # | Action # | Action<br>Description   | Action Status   | Est. Initiation Date | Est. Completion<br>Date | Responsible<br>Parties                               | Work Type                 | Labor Type   | Action Comments  |
|---|-------------------|----------|---|-----------------|----------------------|-------------------------|--|---------------------------|--|--|
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.2      | Develop and<br>maintain a GIS<br>database                     | Ongoing Current | FY 2010              |                         | Wildlife Service,<br>State Conservation<br>Agencies  | Management:<br>Population | Internal Field<br>Assistance, Internal<br>Technical<br>Assistance,<br>Species Expert | Estimated cost for<br>FY2014 represents<br>estimated costs for<br>FY2014 - 2064  |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.3      | Develop a strategic<br>recovery<br>implementation<br>database | Ongoing Current | FY 2010              |                         | Wildlife Service,<br>State Conservation<br>Agencies, | Planning,                 | Species Expert   | Estimated cost for FY2014 represents estimated costs for FY2014 - 2064; Starts 3rd year to allow SRITs to become established |

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|---|-------------------|----------|--|--------------------|----------------------|-------------------------|--|----------------------------|---|---|
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.4      | Carry out cooperative projects to protect the species and its habitat, restore degraded habitat, and improve surface lands | Ongoing Current    | FY 2010              | FY 2065                 | U.S. Fish and Wildlife Service, Non-governmental organizations, State Conservation Agencies, State Departments of Transportation, Research and State University Institutions, County and City Governments, Businesses and Industries, Scaleshell Recovery Implementation Team, Private Landowners, Other Federal Agencies (e.g., U.S. Army Corps of Engineers, U.S. Forest Service, U.S. Environmental Protection Agency, Office of Surface Mining, U.S. Geological Survey, U.S. Department of Transportation, Tennessee Valley Authority) | Work type not yet selected | Internal Technical<br>Assistance,<br>Species Expert | Estimated cost for FY2014 represents estimated costs for FY2014 - 2064          |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.5.1    | Develop and implement a propagation plan   | Partially Complete | FY 2010              | FY 2011                 | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions,<br>Scaleshell<br>Recovery<br>Implementation<br>Team   | Management:<br>Propagation | Internal Technical<br>Assistance,<br>Species Expert | Estimated cost for<br>FY2014 represents<br>estimated costs for<br>FY2014 - 2064 |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.5.2    | Improve methodologies for artificial propagation, rearing and maintenance of brood stock, and monitoring techniques        | Ongoing Current    | FY 1995 - FY 1999    | FY 2010                 | U.S. Fish and Wildlife Service, State Conservation Agencies, Research and State University Institutions, Scaleshell Recovery Implementation Team   | Management:<br>Propagation | Contract, Graduate<br>Student, Species<br>Expert    |   |

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|---|-------------------|----------|---|--------------------|----------------------|-------------------------|--|--|--|---|
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.6.1    | Determine<br>tolerance to various<br>contaminants   | Partially Complete |                      |                         | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions,<br>Businesses and<br>Industries | Research:<br>Environmental<br>Contaminants | Contract   |   |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 2.6.2    | Conduct field<br>studies to<br>determine seasonal<br>ambient exposure<br>conditions of<br>contaminants<br>evaluated in Action<br>2.6.1    | Partially Complete | FY 2007              |                         | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions                                  | Research:<br>Environmental<br>Contaminants | Contract, Internal<br>Technical<br>Assistance,<br>Species Expert         |   |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 3.1.1    | Conduct research<br>on reproductive<br>biology  | Partially Complete | FY 1995 - FY 1999    |                         | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions                                  | Research: General                          | Contract, Graduate<br>Student  |   |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 2                 | 3.1.2    | Investigate age and growth characteristics of populations   | Ongoing Current    | FY 2010              | FY 2013                 | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions                                  | Research: General                          | Graduate Student   | Estimated cost for<br>FY2014 represents<br>estimated costs for<br>FY2014 - 2064 |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 3.4.1    | Determine genetic<br>differentiation<br>among and within<br>populations   | Ongoing Current    | FY 2010              | FY 2013                 | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions                                  | Research: Genetics                         | Graduate Student   |   |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 1                 | 3.4.3    | Determine number of local and stream populations needed to maintain the species and optimal geographic distribution for those populations | Ongoing Current    | FY 2010              | FY 2013                 | U.S. Fish and<br>Wildlife Service,<br>State Conservation<br>Agencies,<br>Research and<br>State University<br>Institutions                                  | Research,<br>Research: Genetics            | Graduate Student,<br>Internal Technical<br>Assistance,<br>Species Expert | Estimated cost for FY2014 represents estimated costs for FY2014 - 2064          |
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 3                 | 7.2      | Maintain database of recovery actions   | Ongoing Current    | FY 2010              | FY 2065                 | U.S. Fish and<br>Wildlife Service,<br>Scaleshell<br>Recovery<br>Implementation<br>Team   | Management:<br>General                     | Species Expert   | Estimated cost for FY2014 represents estimated costs for FY2014 - 2064          |

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|---|-------------------|----------|--|-----------------|----------------------|-------------------------|-----------------------------------|----------------------|------------|--|
| Scaleshell mussel<br>(Leptodea<br>leptodon) | 3                 | 7.3      | Review new information and update the plan as needed | Ongoing Current | FY 2000 - FY 2004    |                         | U.S. Fish and<br>Wildlife Service | Management:<br>Other |            | Estimated cost for FY2014 represents estimated costs for FY2014 - 2064 |